

26. A system in accordance with Claim 25 wherein said feed water comprises output from at least one of a desalination plant, a water clean-up system, and a steam turbine condenser.

27. A system in accordance with Claim 25 wherein said topping heater comprises a gas fired heater.

28. A system in accordance with Claim 27 wherein a portion of oxygen and hydrogen produced by said high temperature water cracking system is used as fuel in said topping heater.

29. A system in accordance with Claim 27 further comprising a first regenerative heat exchanger, and an exhaust from said gas fired topping heater is directed into said first regenerative heat exchanger, said feed water input line coupled to said first regenerative heat exchanger downstream of said steam generator.

30. A system in accordance with Claim 29 wherein said exhaust from said gas fired topping heater is directed to a desalination plant after passing through said first regenerative heat exchanger.

31. A system in accordance with Claim 29 further comprising a second regenerative heat exchanger, said exhaust from said gas fired topping heater is directed to said second regenerative heat exchanger after passing through said first regenerative heat exchanger.

32. A system in accordance with Claim 31 further comprising a steam turbine and generator assembly, and a portion of an output of said steam generator is directed through said second regenerative heat exchanger and to said steam turbine and generator assembly.

33. A system in accordance with Claim 25 further comprising a steam turbine and generator assembly, a portion of an output of said steam generator is used to drive said steam turbine and generator assembly to generate electricity.

34. A system in accordance with Claim 33 wherein said topping heater comprises an electric heater, and a portion of said electricity generated by said steam turbine and generator assembly is used to power said electric topping heater.

35. A system in accordance with Claim 25 further comprising an electricity producing fuel cell facility, and said topping heater comprises an electric heater, a portion of hydrogen and oxygen produced by said high temperature water cracking system is used as fuel in said electricity producing fuel cell, a portion of electricity produced by said fuel cell facility is used to power said electric topping heater, and water produced by said fuel cell facility is used as an addition to said feed water for said high temperature water cracking system.

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Remarks

The Office Action dated January 11, 2002 has been carefully reviewed and the foregoing amendment has been made in consequence thereof.

Claims 1-35 are pending in this application. Claims 1-24 are subject to election requirement. Claims 25-35 are newly added.

In response to the Office Action dated January 11, 2002, Applicants elect, with traverse for prosecution in this application all claims that belong to Group I, i.e., Claims 1-13 and 25-35. Applicants respectfully submit that newly added Claims 25-35 belong to Group I.